RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10|723,123

Source: I+wo

Date Processed by STIC: 10/26/04

ENTERED

IFWO

RAW SEQUENCE LISTING DATE: 10/26/2004
PATENT APPLICATION: US/10/723,123 TIME: 10:48:06

Input Set : A:\Sequence Listing 1998-407-FF-SQ.txt
Output Set: N:\CRF4\10262004\J723123.raw

SEQUENCE LISTING
```
     4 (1) GENERAL INFORMATION:
C-->  7       (i) APPLICANT: Akzo Nobel N.V.
W--> 15      (ii) TITLE OF INVENTION: Coccidiosis vaccines
    17     (iii) NUMBER OF SEQUENCES: 41
W-->  8          (B) STREET: Velperweg 76
     9          (C) CITY: Arnhem
    10          (E) COUNTRY: The Netherlands
C--> 11          (F) ZIP: 6824 BM
C--> 19      (v) COMPUTER READABLE FORM:
    20          (A) MEDIUM TYPE: Floppy disk
    21          (B) COMPUTER: IBM PC compatible
    22          (C) OPERATING SYSTEM: PC-DOS/MS-DOS
    23          (D) SOFTWARE: PatentIn Release #1.0, Version #1.30 (EPO)
C-->  0     (vi) CURRENT APPLICATION DATA:
C-->  0          (A) APPLICATION NUMBER: US/10/723,123
C-->  0          (B) FILING DATE: 26-Nov-2003
C-->  0     (ix) TELECOMMUNICATION INFORMATION:
C--> 12          (A) TELEPHONE: 0412 666379
C--> 13          (B) TELEFAX: 0412 650592
    26 (2) INFORMATION FOR SEQ ID NO: 1:
    28      (i) SEQUENCE CHARACTERISTICS:
    29          (A) LENGTH: 214 amino acids
    30          (B) TYPE: amino acid
    31          (C) STRANDEDNESS: single
    32          (D) TOPOLOGY: linear
    34     (ii) MOLECULE TYPE: protein
    36      (v) FRAGMENT TYPE: internal
    41     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:
    43 Met Pro Phe Glu Leu Pro Pro Leu Pro Tyr Pro Met Asp Ala Leu Glu
    44   1               5                  10                  15
    46 Pro Tyr Ile Ser Lys Glu Thr Leu Glu Tyr His Tyr Gly Lys His His
    47              20                  25                  30
    49 Ala Ala Tyr Val Asn Asn Leu Asn Arg Leu Val Glu Gly Lys Pro Glu
    50          35                  40                  45
    52 Ala Ser Lys Ser Leu Glu Glu Ile Ile Lys Thr Ser Ser Gly Ser Val
    53          50                  55                  60
    55 Leu Asn Asn Ala Gly Gln Ala Trp Asn His Thr Phe Tyr Trp Lys Ser
    56  65                  70                  75                  80
    58 Met Arg Pro Ala Ser Ala Gly Gly Pro Pro Gly Ala Pro Gly Gly Gly
    59              85                  90                  95
    61 Pro Pro Gly Ala Pro Gly Ala Pro Leu Arg Glu Glu Leu Glu Ser Ala
    62             100                 105                 110
```

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```

```
64 Phe Gly Gly Val Glu Lys Phe Arg Glu Ala Phe Ala Ala Ala Ala Ala
65          115                 120                 125
67 Ala His Phe Gly Ser Gly Trp Ala Trp Leu Cys Phe Cys Lys Lys Ser
68          130                 135                 140
70 Arg Ser Leu Phe Leu Leu Gln Thr His Asp Gly Ala Thr Pro Phe Arg
71 145                 150                 155                 160
73 Asp Asn Pro Asn Cys Ala Pro Leu Leu Thr Cys Asp Leu Trp Glu His
74                  165                 170                 175
76 Ala Tyr Tyr Ile Asp Arg Arg Asn Asp Arg Lys Ser Tyr Leu Asp Ala
77              180                 185                 190
79 Trp Trp Ser Val Val Asn Trp Asp Phe Ala Asn Glu Asn Leu Lys Lys
80          195                 200                 205
82 Ala Met Gln Gly Ser Asp
83     210
86 (2)  INFORMATION FOR SEQ ID NO: 2:
88       (i)  SEQUENCE CHARACTERISTICS:
89            (A) LENGTH: 13 amino acids
90            (B) TYPE: amino acid
91            (C) STRANDEDNESS: single
92            (D) TOPOLOGY: linear
94       (ii) MOLECULE TYPE: protein
96       (v)  FRAGMENT TYPE: internal
101      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:
103 Leu Gly Pro Leu Ala Leu Pro Leu Leu Ala Asp Val Arg
104     1           5                   10
107 (2)  INFORMATION FOR SEQ ID NO: 3:
109      (i)  SEQUENCE CHARACTERISTICS:
110            (A) LENGTH: 223 amino acids
111            (B) TYPE: amino acid
112            (C) STRANDEDNESS: single
113            (D) TOPOLOGY: linear
115      (ii) MOLECULE TYPE: protein
117      (v)  FRAGMENT TYPE: internal
122      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:
124 Met Pro Leu Asn Leu Gly Asp Ser Phe Pro Asp Phe Gln Ala Glu Ala
125   1           5                   10                  15
127 Leu Gly Ala Glu His Phe Arg Leu His Glu Tyr Leu Gly Asp Ser Trp
128              20                  25                  30
130 Gly Val Met Phe Ser His Pro Asn Asp Phe Thr Pro Val Cys Thr Thr
131          35                  40                  45
133 Glu Leu Ala Glu Ala Val Lys Leu Gln Asp Ser Phe Thr Lys Lys Asn
134      50                  55                  60
136 Cys Lys Leu Val Gly Phe Ser Cys Asn Asp Leu Gln Ser His Arg Glu
137 65                  70                  75                  80
139 Trp Ala Lys Asp Ile Met Ala Tyr Ala Gly Arg Ser Gly Asn Leu Pro
140              85                  90                  95
142 Phe Pro Leu Val Cys Asp Pro Asn Arg Glu Leu Ala Ala Ser Leu Gly
143          100                 105                 110
145 Ile Met Asp Pro Ala Glu Lys Asp Lys Lys Gly Leu Pro Leu Thr Cys
```

RAW SEQUENCE LISTING   DATE: 10/26/2004
PATENT APPLICATION: **US/10/723,123**   TIME: 10:48:06

Input Set : **A:\Sequence Listing 1998-407-FF-SQ.txt**
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```
146          115                    120                    125
148 Arg Cys Val Phe Phe Ile Ser Pro Glu Lys Lys Leu Ala Ala Ser Ile
149     130                    135                    140
151 Leu Tyr Pro Ala Thr Thr Gly Arg Asn Phe Ala Glu Ile Leu Arg Val
152 145                    150                    155                    160
154 Leu Asp Ser Leu Gln Leu Thr Ala Lys Phe Pro Val Ala Thr Pro Val
155                    165                    170                    175
157 Asp Trp Thr Ala Gly Ala Lys Cys Cys Val Val Pro Asn Leu Ala Ala
158             180                    185                    190
160 Glu Glu Ala Gln Arg Leu Leu Pro Lys Gly His Glu Ala Leu Gln Leu
161         195                    200                    205
163 Pro Ser Gly Lys Pro Tyr Leu Arg Leu Thr Pro Asp Pro Arg Gly
164     210                    215                    220
167 (2) INFORMATION FOR SEQ ID NO: 4:
169     (i) SEQUENCE CHARACTERISTICS:
170         (A) LENGTH: 15 amino acids
171         (B) TYPE: amino acid
172         (C) STRANDEDNESS: single
173         (D) TOPOLOGY: linear
175     (ii) MOLECULE TYPE: protein
177     (v) FRAGMENT TYPE: internal
182     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:
184     Met Ser Pro Ser Pro Ala Gly Val Ala Glu Tyr Leu Ala Ser Leu
185     1               5                    10                    15
187 (2) INFORMATION FOR SEQ ID NO: 5:
189     (i) SEQUENCE CHARACTERISTICS:
190         (A) LENGTH: 16 amino acids
191         (B) TYPE: amino acid
192         (C) STRANDEDNESS: single
193         (D) TOPOLOGY: linear
195     (ii) MOLECULE TYPE: protein
197     (v) FRAGMENT TYPE: internal
202     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:
204     Asn His Ala Glu Phe Asp Pro Ser Gln Thr Glu Val Val Val Phe Pro
205     1               5                    10                    15
208 (2) INFORMATION FOR SEQ ID NO: 6:
210     (i) SEQUENCE CHARACTERISTICS:
211         (A) LENGTH: 20 amino acids
212         (B) TYPE: amino acid
213         (C) STRANDEDNESS: single
214         (D) TOPOLOGY: linear
216     (ii) MOLECULE TYPE: protein
218     (v) FRAGMENT TYPE: internal
223     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:
225     Val Asp Ser Phe Thr Pro Ser Val Gly Cys Val Phe Ala Gly Met Pro
226     1               5                    10                    15
228     Ala Asp Phe Arg
229                 20
231 (2) INFORMATION FOR SEQ ID NO: 7:
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RAW SEQUENCE LISTING   DATE: 10/26/2004
PATENT APPLICATION: US/10/723,123   TIME: 10:48:06

        Input Set : A:\Sequence Listing 1998-407-FF-SQ.txt
        Output Set: N:\CRF4\10262004\J723123.raw

```
233        (i) SEQUENCE CHARACTERISTICS:
234            (A) LENGTH: 17 base pairs
235            (B) TYPE: nucleic acid
236            (C) STRANDEDNESS: double
237            (D) TOPOLOGY: linear
239       (ii) MOLECULE TYPE: DNA (genomic)
244       (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:
246 GTAAATTGGG ACTTCGC                                          17
248 (2) INFORMATION FOR SEQ ID NO: 8:
250        (i) SEQUENCE CHARACTERISTICS:
251            (A) LENGTH: 17 base pairs
252            (B) TYPE: nucleic acid
253            (C) STRANDEDNESS: double
254            (D) TOPOLOGY: linear
256       (ii) MOLECULE TYPE: DNA (genomic)
261       (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:
263 GTAAACTGGG ACTTCGC                                          17
265 (2) INFORMATION FOR SEQ ID NO: 9:
267        (i) SEQUENCE CHARACTERISTICS:
268            (A) LENGTH: 17 base pairs
269            (B) TYPE: nucleic acid
270            (C) STRANDEDNESS: double
271            (D) TOPOLOGY: linear
273       (ii) MOLECULE TYPE: DNA (genomic)
278       (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:
280 GTAAATTGGG ACTTCGC                                          17
282 (2) INFORMATION FOR SEQ ID NO: 10:
284        (i) SEQUENCE CHARACTERISTICS:
285            (A) LENGTH: 17 base pairs
286            (B) TYPE: nucleic acid
287            (C) STRANDEDNESS: double
288            (D) TOPOLOGY: linear
290       (ii) MOLECULE TYPE: DNA (genomic)
295       (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:
297 GTAAACTGGG ACTTCGC                                           17
299 (2) INFORMATION FOR SEQ ID NO: 11:
301        (i) SEQUENCE CHARACTERISTICS:
302            (A) LENGTH: 17 base pairs
303            (B) TYPE: nucleic acid
304            (C) STRANDEDNESS: double
305            (D) TOPOLOGY: linear
307       (ii) MOLECULE TYPE: DNA (genomic)
312       (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:
314 GTTAATTGGG ACTTCGC                                          17
316 (2) INFORMATION FOR SEQ ID NO: 12:
318        (i) SEQUENCE CHARACTERISTICS:
319            (A) LENGTH: 17 base pairs
320            (B) TYPE: nucleic acid
321            (C) STRANDEDNESS: double
```

Input Set : **A:\Sequence Listing 1998-407-FF-SQ.txt**
Output Set: **N:\CRF4\10262004\J723123.raw**

```
322            (D)  TOPOLOGY: linear
324       (ii) MOLECULE TYPE: DNA (genomic)
329       (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:
331 GTTAACTGGG ACTTCGC                                              17
333 (2) INFORMATION FOR SEQ ID NO: 13:
335       (i) SEQUENCE CHARACTERISTICS:
336            (A)  LENGTH: 17 base pairs
337            (B)  TYPE: nucleic acid
338            (C)  STRANDEDNESS: double
339            (D)  TOPOLOGY: linear
341       (ii) MOLECULE TYPE: DNA (genomic)
346       (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 13:
348 GTTAATTGGG ACTTCGC                                              17
350 (2) INFORMATION FOR SEQ ID NO: 14:
352       (i) SEQUENCE CHARACTERISTICS:
353            (A)  LENGTH: 17 base pairs
354            (B)  TYPE: nucleic acid
355            (C)  STRANDEDNESS: double
356            (D)  TOPOLOGY: linear
358       (ii) MOLECULE TYPE: DNA (genomic)
363       (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 14:
365 GTTAACTGGG ACTTCGC                                              17
367 (2) INFORMATION FOR SEQ ID NO: 15:
369       (i) SEQUENCE CHARACTERISTICS:
370            (A)  LENGTH: 17 base pairs
371            (B)  TYPE: nucleic acid
372            (C)  STRANDEDNESS: double
373            (D)  TOPOLOGY: linear
375       (ii) MOLECULE TYPE: DNA (genomic)
380       (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 15:
382 GTGAATTGGG ACTTTGC                                              17
384 (2) INFORMATION FOR SEQ ID NO: 16:
386       (i) SEQUENCE CHARACTERISTICS:
387            (A)  LENGTH: 17 base pairs
388            (B)  TYPE: nucleic acid
389            (C)  STRANDEDNESS: double
390            (D)  TOPOLOGY: linear
392       (ii) MOLECULE TYPE: DNA (genomic)
397       (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 16:
399 GTGAACTGGG ACTTTGC                                              17
401 (2) INFORMATION FOR SEQ ID NO: 17:
403       (i) SEQUENCE CHARACTERISTICS:
404            (A)  LENGTH: 17 base pairs
405            (B)  TYPE: nucleic acid
406            (C)  STRANDEDNESS: double
407            (D)  TOPOLOGY: linear
409       (ii) MOLECULE TYPE: DNA (genomic)
414       (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 17:
416 GTGAATTGGG ACTTTGC                                              17
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VERIFICATION SUMMARY   DATE: 10/26/2004
PATENT APPLICATION: **US/10/723,123**   TIME: 10:48:07

Input Set : **A:\Sequence Listing 1998-407-FF-SQ.txt**
Output Set: **N:\CRF4\10262004\J723123.raw**

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L:7 M:220 C: Keyword misspelled or invalid format, [(i) APPLICANT:] of (1) line corrected
L:8 M:238 W: Alpha Fields not Ordered, Reordered [(B) STREET:] of (1)(iv)
L:11 M:220 C: Keyword misspelled or invalid format, [(F) ZIP:]
L:12 M:220 C: Keyword misspelled or invalid format, [(A) TELEPHONE:]
L:13 M:220 C: Keyword misspelled or invalid format, [(B) TELEFAX:]
L:15 M:238 W: Alpha Fields not Ordered, Reordered [(ii) TITLE OF INVENTION:] of (1)
L:19 M:220 C: Keyword misspelled or invalid format, [(v) COMPUTER READABLE FORM:]
L:0 M:247 C: Inserted Optional Header Field, [(ix) TELECOMMUNICATION INFORMATION:]
L:0 M:249 C: Inserted Mandatory Field, [(vi) CURRENT APPLICATION DATA:]
L:0 M:249 C: Inserted Mandatory Field, [(A) APPLICATION NUMBER:]
L:0 M:249 C: Inserted Mandatory Field, [(B) FILING DATE:]
L:790 M:111 C: (47) String data converted to upper case,
L:794 M:111 C: (47) String data converted to upper case,
L:798 M:111 C: (47) String data converted to upper case,
L:802 M:111 C: (47) String data converted to upper case,
L:806 M:111 C: (47) String data converted to upper case,
L:810 M:111 C: (47) String data converted to upper case,
L:814 M:111 C: (47) String data converted to upper case,
L:818 M:111 C: (47) String data converted to upper case,
L:822 M:111 C: (47) String data converted to upper case,
L:826 M:111 C: (47) String data converted to upper case,
L:830 M:111 C: (47) String data converted to upper case,
L:834 M:111 C: (47) String data converted to upper case,
L:838 M:111 C: (47) String data converted to upper case,
L:842 M:111 C: (47) String data converted to upper case,
L:844 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:39
L:846 M:111 C: (47) String data converted to upper case,
L:890 M:111 C: (47) String data converted to upper case,
L:894 M:111 C: (47) String data converted to upper case,
L:898 M:111 C: (47) String data converted to upper case,
L:902 M:111 C: (47) String data converted to upper case,
L:906 M:111 C: (47) String data converted to upper case,
L:910 M:111 C: (47) String data converted to upper case,
L:914 M:111 C: (47) String data converted to upper case,
L:918 M:111 C: (47) String data converted to upper case,
L:922 M:111 C: (47) String data converted to upper case,
L:926 M:111 C: (47) String data converted to upper case,
L:930 M:111 C: (47) String data converted to upper case,
L:934 M:111 C: (47) String data converted to upper case,
L:938 M:111 C: (47) String data converted to upper case,
L:942 M:111 C: (47) String data converted to upper case,
```